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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,607	09/30/2003	Stephen Y. Chou	13545-25	4191

1688 7590 01/05/2007

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EXAMINER	
VARGOT, MATHIEU D	
ART UNIT	PAPER NUMBER
1732	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/05/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/674,607	CHOU ET AL.	
	Examiner	Art Unit	
	Mathieu D. Vargot	1732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 October 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *8-14 and 16-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *8-14 and 16-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1.Claim 19 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 19, line 6, "the moldable surface" and line 9, "the substrate", each lack antecedent basis.

2.The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 19 is rejected under 35 U.S.C. 102(b) as being anticipated by Napoli et al (see col. 5, lines 3-14).

Napoli et al discloses the instant process of imprinting a pattern comprising a periodic array of holes or pillars using the instant steps of providing a mold and urging the mold against a substrate with a moldable surface to imprint the pattern thereto and reproducing the pattern in the substrate.

3.The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 8-14 and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Napoli et al (see col. 5, lines 3-14).

The applied reference discloses the basic claimed process for forming a pattern on a moldable surface on a substrate by urging together a mold with the desired features thereon and the moldable surface, the features being in the nanometer range. Note that column 5, lines 3-14 of Napoli et al teach that the features are from 2 - .7 microns wide (ie, 2000-700 nm) and that the depth of the valleys (formed on the moldable material) is .2 - .3 microns (ie, 200-300 nm). The instantly claimed lateral dimension of "200 nm or less" is submitted to have been obvious over the lateral dimensions of 600-700 nm taught in Napoli et al. It is further well known in the art to employ fluid pressure, electrostatic and magnetic forces by which the molds are urged together or moved against surfaces to be molded and such is submitted to have been an obvious modification over the pressing of Napoli et al.

4.The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5.Claims 8-14 and 16-19 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 42-59 of copending Application No. 10/046,594. The instant claims and those of

copending application –594 set forth similar methods wherein a moldable surface is urged against a molding surface and the exact nanometer dimensions of the features molded would have been within the skill level of the art. The instant methods of pressing are well known and would have been obvious over mechanical pressing to urge the mold and moldable surface together.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

6.Claims 8-14 and 16-19 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-46 of copending Application No. 10/244,296. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of copending application –296 set forth the basic claimed process but are more specific in calling for a release material with an inorganic linking group bonded to a molecular chain having release properties bonded to the mold features. It is well within the skill level of the art to do away with process limitations deemed to be unnecessary. The exact dimensions of the features would likewise have been within the skill level of the art. The instant methods of pressing are well known and would have been obvious over mechanical pressing to urge the mold and moldable surface together.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

7.Claims 8-14 and 16-19 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over the claims of

copending Application No. 10/244,303. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant claims and those of copending application –303 essentially set forth the same invention with differences only in the specific dimensions achieved during the pressing. As already noted in this application, the exact dimensions would have been obvious variants over each other and certainly within the skill level of the art given that they would be of the same order of magnitude. The instant methods of pressing are well known and would have been obvious over mechanical pressing to urge the mold and moldable surface together.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

8.Claims 8-14 and 16-19 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over the claims of copending Application No. 10/244,276. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant claims and those of copending application –276 essentially set forth the same invention with differences only in the specific dimensions achieved during the pressing. As already noted in this application, the exact dimensions would have been obvious variants over each other and certainly within the skill level of the art given that they would be of the same order of magnitude. The instant methods of pressing are well known and would have been obvious over mechanical pressing to urge the mold and moldable surface together.

9.Claims 8-14 and 16-19 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-19 of U.S.

Patent No. 5,772,905. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant application and previously issued US Patent –905 set forth similar inventions, and the instant claims are much broader than those of the previously issued patent. The instant methods of pressing are well known and would have been obvious over mechanical pressing to urge the mold and moldable surface together.

10. Claims 8-14 and 16-19 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-23 of U.S. Patent No. 6,309,580. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant application and previously issued US Patent –580 set forth similar inventions, and the instant claims are much broader than those of the previously issued patent. The instant methods of pressing are well known and would have been obvious over mechanical pressing to urge the mold and moldable surface together.

11.Claims 8-14 and 16-19 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 44-58 of copending Application No. 11/003,107. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of copending application –107 set forth the basic claimed process but are more specific in calling for a particular process by which the molding is effected. It is well within the skill level of the art to do away with process limitations deemed to be unnecessary and to pick and choose a suitable molding method. The exact dimensions of the features

would likewise have been within the skill level of the art. The instant methods of pressing are well known and would have been obvious over mechanical pressing to urge the mold and moldable surface together.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

12.Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.
In view of the amendment, a new rejection has been offered which renders applicant's comments with respect to the previous rejection essentially moot.

13.Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mathieu D. Vargot whose telephone number is 571 272-1211. The examiner can normally be reached on Mon-Fri from 9 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on 571 272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M. Vargot
January 3, 2007

Mathieu D. Vargot
Primary Examiner
Art Unit 1732
1/3/07